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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,183

11/27/2006

Takakazu Shiomi

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1989

52123 7590 06/18/2010
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EXAMINER

LAY, MICHELLE K

ART UNIT

PAPER NUMBER

2628

NOTIFICATION DATE

DELIVERY MODE

06/18/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
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Office Action Summary	Application No. 10/598,183	Applicant(s) SHIOMI ET AL.	
	Examiner MICHELLE K. LAY	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/01/2010 has been entered.

Response to Amendment

The amendment filed 06/01/2010 has been entered and made of record. Claims 1-19 are cancelled. Claims 20-22 are pending.

The amendment to claim 21 has overcome the 35 USC §101 rejection made in the final office action filed 12/10/2009.

Response to Arguments

Applicant's arguments filed 06/01/2010 have been fully considered but they are not persuasive. Applicant argues Matsumoto et al. (2003/0080958 A1) fails to teach a specific order for superimposing, storage and overwriting. Examiner respectfully disagrees. Matsumoto teaches using first and second frame buffers (16a-b) (or n frame buffers) corresponding to the number of layers of the multiple layer image. The first and second layers are initially superimposed, and if more layers are needed, the third, fourth

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... n number layers are added in the order of frame buffers. Furthermore, a display list arranging device (122) arranges or reconstructs the display list generated by the display list generating routine (112) of the drawing application processor (11) for each of the images of the plurality of layers. In the display list arranging device (122), the display list is arranged or reconstructed as to be suitable for the drawing device (13) [0075].

Therefore, a specified order is used to generate the multiple layer image.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim **22** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 recites a computer readable storage medium. Applicant's disclosure defines ROM (215) stores a program to be executed by the CPU (217). The ROM (215) is configured of a Read-Only Memory, a CD-ROM, a DVD, or the like [0063]. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO (see *In re Zletz*, 893 F.2d 319 Fed. Cir. 1989). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent (see MPEP 2111.01). Thus, the

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definition of Applicant's computer readable storage medium in the disclosure provides an open ended listing of computer-readable mediums fails to limit the claim to only non-transitory tangible media, and therefore is non-statutory (see *1351 Off. Gaz. Pat. Office* 212 (February 23, 2010)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (2003/0080958).

In regards to claim **20**, Matsumoto teaches an image generating apparatus that superimposes a plurality of layers for display. Matsumoto teaches a program storage device readable by a computer for tangibly embodying a program of instructions executable by the computer to perform an image generating method [0043]. The program can be downloaded through a communication device (said **downloader operable to download the program**) and then executed via the image generating apparatus (said **executioner**) [0044]. The image generating apparatus (1) is provided with a drawing application processor (11), a graphics library (12), a drawing device (13), a graphics memory (16) and a superimposing unit (17) [Fig. 1; 0068]. The image

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generating apparatus (1) is designed so as to be able to generate images of the plurality of layers. In order that the drawing device (13) generates a 3D image of the first layer, a first frame buffer (16a) is installed within the graphics memory (16). In order to generate a 3D image of the second layer, a second frame buffer (16b) is installed within the graphics memory (16). Namely, the frame buffers whose number is corresponding to the number of the layers are installed within the graphics memory (16) (said **a provider operable to provide ... plurality of storage areas**) [0069]. With reference to Fig. 3, the drawing application processor (11) generates a display list for a 3D image. The generated display list is stored as an object display list (1) of the graphics library (12) (said **an order storage**) [0079]. The display list execution device (123) (said **notifier**) controls the drawing device (13). When generating the 3D image, the display list execution device (123) instructs the scene object setting device (121) and the display list arranging device (122) to send the coordinate transformation information and the arrange or reconstructed display list (said **notification regarding the order stored**) to the drawing device (13) and further instructs the drawing device (13) to execute the image generating process [0076]. If the arranging or reconstruction of the display list is indicated, the display list received from the drawing application processor (11) is arranged or reconstructed (said **graphic image is overwritten according to specified order**) so as to be suitable for the drawing device (13) [0083]. Therefore, the display list provides the specified order to arrange or reconstruct the layers. The multiple layers within the multiple frame buffers (16a, b ...) are configured so as to be displayed on and outputted as one multiple-layer 3D image to a display unit, after they are superimposed

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by the superimposing unit (17) (said **a display operable to superimpose**) [0069; 0078]. Furthermore, as shown in Fig. 1, the system of Matsumoto teaches the different layers comprising the superimposed image are stored in a first frame buffer (16a), second frame buffer (16b) ... n frame buffer, depended on the n number of layers. The generated display list provides a specified order in which the layers will be superimposed in [0079]. Thus, the different layers are stored in the order in which the layers will be superimposed as indicated by the display list (said **graphics images stored in storage areas in accordance with specified order storage**).

As indicated above, when generating the 3D image, the display list execution device (123) instructs the scene object setting device (121) and the display list arranging device (122) to send the coordinate transformation information and the arrange or reconstructed display list (said **notification regarding the order stored**) to the drawing device (13) and further instructs the drawing device (13) to execute the image generating process [0076]. If the arranging or reconstruction of the display list is indicated, the display list received from the drawing application processor (11) is arranged or reconstructed so as to be suitable for the drawing device (13) [0083]. Therefore, although Matsumoto does not explicitly teach changing the specified order, Matsumoto teaches the display list can be arranged or reconstructed. Therefore, it would have been obvious to one of ordinary skill in the art that the arranging or reconstruction of the display list can indicate a change to the display order (i.e., specified order) of the plurality of layers of the multiple layer image.

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In regards to claim **21**, claim 21 recites similar limitations as claim 20 but in process form. Therefore, the same rationale used for claim 20 is applied. Furthermore, Matsumoto teaches the process implemented by the system described in the rationale of claim 20 within Fig. 3 [0079].

In regards to claim **22**, claim 22 recites similar limitations as claim 20 but in manufacture form. Therefore, the same rationale used for claim 20 is applied. Furthermore, Matsumoto teaches the program storage device (said **computer readable storage medium**) readable by a computer for tangibly embodying a program of instructions executable by the computer to perform an image generating method [0043].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle K. Lay whose telephone number is (571) 272-7661. The examiner can normally be reached on Monday-Friday 7:30a-3:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee M. Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle K. Lay/
Primary Examiner, Art Unit 2628
16 June 2010